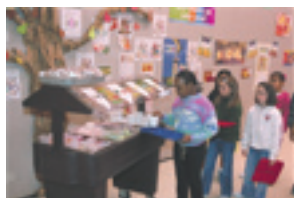


School Food Services

Level 1 Courses



Certification Handouts



LUNCH PRODUCTION PLAN

	5/25/2005	School		Menu items / Non-menu Items			
				Extra Sales		# Meals Served	
Cheese Pizza, Tuna Salad on Wheat/White Bread, Yogurt, Peanut Butter & Jelly Uncrustable/Tossed Garden Salad w/Low fat Dressing, Fresh Apple, Fresh Orange, Banana, Chilled Peaches, Orange Sherbet, Choice of Milk							295
							30
							4
				TOTAL Extra Sales		70	TOTAL MEALS 329

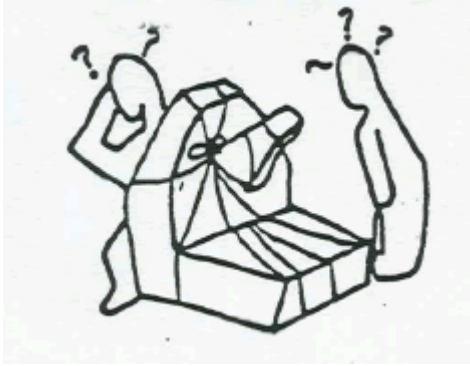
Offer-vs.-Serve	YES	x	NO	
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Meal Component	Food Items	Recipe # / CN Label / FBG	Planned # / Portion Size	Temperature	Amt Prepared Food Used	Extra Sales	Comments +/-, Wasted
Meat/Meat Alternate	Tuna Salad Sandwich	USDA F-8A	50/2oz.		50		
	Cheese Pizza	CN/4.65oz.	250/4.65		280	40	
	Raspberry Yogurt	IPP/8oz.	30/8oz.		28		
	P&J Uncrustable	IPP/2.8oz.	20/2.8oz		10	5	
Vegetables/Fruits	Tossed Garden Salad	SRP V22A	200/1/2c		200		
	Fresh Orange/Apple	IPP 100ct 75 each	150/1/2c		150		
	Fresh/Banana	IPP 100ct	75/1/2c		85		
	Chilled Peaches	IPP 4oz. Cups	75/1/2c		65		
Bread/Grains	Tuna Salad Sandwich	USDA F-8A	50/2oz.		50		
	Cheese Pizza	CN/4.65oz.	250/2oz.		280		
	P&J Uncrustable	IPP/2.8oz.	20/1oz.		10		
Milk	2% White, skim, 1% Chocolate	IPP/8oz.	350/8oz.		325	25	
Other Foods	Orange Sherbet	IPP/4oz.	300/4oz.		325		
	Choice of Dressing	IPP/1oz.	250/1oz.		200		

This production Plan Example was provided by Ashland Independent Child Nutrition Program. This is an example of Any Reasonable Approach Menu Planning

LIFTING

1. **SIZE UP THE JOB** ... is it too heavy? Is it too bulky? Can mechanical means of lifting be used?



2. **POSITION FEET CAREFULLY** ... feet spread about 20" ... one foot at side of object... other foot in back of object



3. **BEND BODY CORRECTLY**... bend knees... feet flat on floor... back straight but not necessarily vertical ... tuck chin in.



4. **TILT OBJECT** ... grasp freed bottom corner with one hand ... grip firmly with palm of hands as well as fingers.



5. **LIFT WITH LEG MUSCLES** ... keep object close to body ... arms in ... chin in .. make leg muscles do the work.

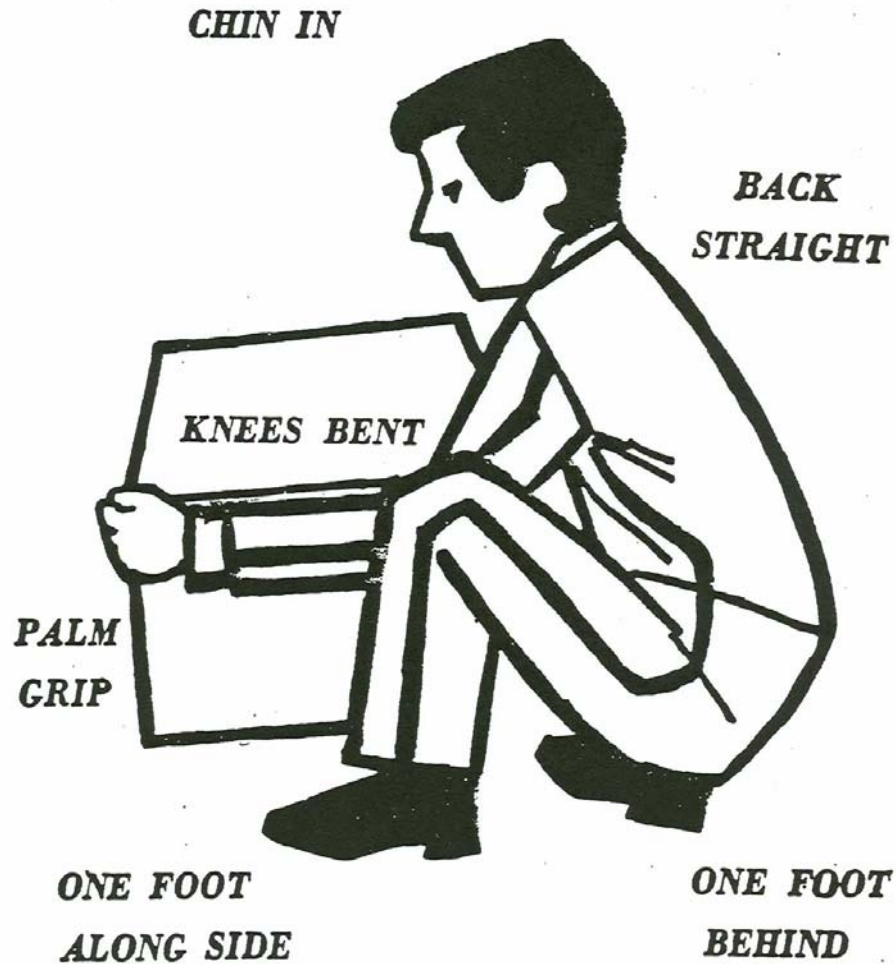


6. **LOWER LOAD BY REPEATING STEPS 2, 3, 4, 5** ... avoid twisting throughout the lift, the carry, and the set down... remember, repetitive lifting and twisting, no matter how light the load, will cause you trouble sooner or later.



**IT'S UP TO YOU
THINK BEFORE YOU LIFT**

SAFE LIFTING



KENTUCKY SCHOOL BOARDS INSURANCE TRUST

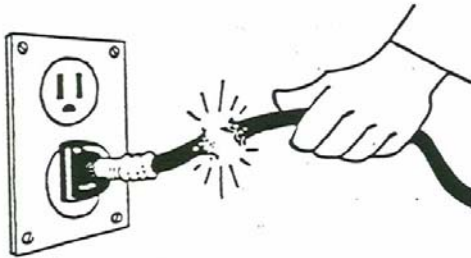
BURNS CAN BE PREVENTED

1) CONSIDER EVERY POT
OR PAN HOT !

2) HANDLE POTS, PANS,
AND LIDS CAREFULLY !



3) USE HOT PADS OR GLOVES,
NOT APRONS OR TOWELS,
TO HANDLE HOT ITEMS



4) DO NOT PULL CORDS OUT
OF THE SOCKET - PULL
THE PLUG !




5) OPEN OVENS, STEAMERS,
AND PAN LIDS. SLOWLY
TO PREVENT STEAM
BURNS






6) KEEP HANDLES OF POTS
TURNED SO THAT THEY ARE OUT OF WALKWAYS AND TRAFFIC AREAS

OVERHEAD #6

KNOW ABOUT FIRES AND EXTINGUISHERS

CLASS OF FIRE	TYPE OF FIRE	TYPE OF EXTINGUISHER
CLASS A	WOOD, PAPER, RAGS, ORDINARY COMBUSTIBLES	
CLASS B	GREASE, GASOLINE, OIL, PAINT FLAMMABLE LIQUIDS	
CLASS C	ELECTRICAL AND ELECTRICAL EQUIPMENT	

MOST SCHOOL KITCHENS SHOULD BE EQUIPPED WITH A FIRE EXTINGUISHER
THAT IS MARKED WITH AN    SO THAT IT
CAN BE USED ON ANY FIRE CAUSED BY MATERIALS IN CLASS A, B, OR C,
SINCE ALL OF THESE ARE IN REGULAR USE IN THE KITCHEN.

Basics at a Glance

Recipe Abbreviations

approx.	= approximate
tsp or t	= teaspoon
Tbsp or T	= tablespoon
c	= cup
pt	= pint
qt	= quart
gal	= gallon
wt	= weight
oz	= ounce
lb or #	= pound (e.g., 3#)
g	= gram
kg	= kilogram
vol	= volume
mL	= milliliter
L	= liter
fl oz	= fluid ounce
No. or #	= number (e.g., #3)
in. or "	= inches (e.g., 12")
°F	= degree Fahrenheit
°C	= degree Celsius or centigrade

Volume Equivalents for Liquids



60 drops	= 1 tsp	
1 Tbsp	= 3 tsp	= 0.5 fl oz
1/8 cup	= 2 Tbsp	= 1 fl oz
1/4 cup	= 4 Tbsp	= 2 fl oz
1/3 cup	= 5 Tbsp + 1 tsp	= 2.65 fl oz
3/8 cup	= 6 Tbsp	= 3 fl oz
1/2 cup	= 8 Tbsp	= 4 fl oz
5/8 cup	= 10 Tbsp	= 5 fl oz
2/3 cup	= 10 Tbsp + 2 tsp	= 5.3 fl oz
3/4 cup	= 12 Tbsp	= 6 fl oz
7/8 cup	= 14 Tbsp	= 7 fl oz
1 cup	= 16 Tbsp	= 8 fl oz
1/2 pint	= 1 cup	= 8 fl oz
1 pint	= 2 cups	= 16 fl oz
1 quart	= 2 pt	= 32 fl oz
1 gallon	= 4 qt	= 128 fl oz

Equivalent Weights



16 oz	= 1 lb	= 1.000 lb
12 oz	= 3/4 lb	= 0.750 lb
8 oz	= 1/2 lb	= 0.500 lb
4 oz	= 1/4 lb	= 0.250 lb
1 oz	= 1/16 lb	= 0.063 lb

Fraction to Decimal Equivalents



1/8	= 0.125
1/4	= 0.250
1/3	= 0.333
3/8	= 0.375
1/2	= 0.500
5/8	= 0.625
2/3	= 0.666
3/4	= 0.750
7/8	= 0.875

Metric Equivalents by Weight



Customary Unit (avoirdupois)	Metric Unit
Ounces (oz)	Grams (g)
1 oz	= 28.35 g
4 oz	= 113.4 g
8 oz	= 226.8 g
16 oz	= 453.6 g
Pounds (lb)	Grams (g)
1 lb	= 453.6 g
2 lb	= 907.2 g
Pounds (lb)	Kilograms (kg)
2.2 lb	= 1 kg (1000 g)

Metric Equivalents by Volume



Customary Unit (fl oz)	Metric Unit
1 cup (8 fl oz)	= 236.59 mL
1 quart (32 fl oz)	= 946.36 mL
1.5 quarts (48 fl oz)	= 1.42 L
33.818 fl oz	= 1.0 L

Scoops (Dishers)



Size/No. ¹	Level Measure	Color Code ²
6	2/3 cup	
8	1/2 cup	
10	3/8 cup	
12	1/3 cup	
16	1/4 cup	
20	3-1/3 Tbsp	
24	2-2/3 Tbsp	
30	2 Tbsp	
40	1-2/3 Tbsp	
50	3-3/4 tsp	
60	3-1/4 tsp	
70	2-3/4 tsp	
100	2 tsp	

¹Scoops are left or right hand or squeeze type that can be used for both hands. Number on the scoop indicates how many level scoops make one quart. For example, eight No. 8 scoops = 1 quart.



²Use colored dots matching the brand-specific color coding of scoop sizes.

Ladles Portion Servers



Ladle fl oz	Approx. Measure	Portion Server fl oz
1 oz	1/8 cup	1 oz
2 oz	1/4 cup	2 oz
3 oz	3/8 cup	3 oz
4 oz	1/2 cup	4 oz
6 oz	3/4 cup	6 oz
8 oz	1 cup	8 oz
12 oz	1-1/2 cups	—

Ladles and portion servers (measuring-serving spoons that are volume-standardized) are labeled "oz." "Fl oz" would be more accurate since they measure volume, not weight.

Use ladles for serving soups, stews, creamed dishes, sauces, gravies, and other liquid products.

Use portion servers (solid or perforated) for portioning solids and semi-solids such as fruits and vegetables, and condiments.

Cooking or Serving Spoons



Solid Spoons



Perforated Spoons



Slotted Spoons

Spoons vary in length (11", 13", 15", 18", 21") for ease of use in cooking or serving. Spoons can have plastic handles that are heat-resistant. Level scoops, ladles, and portion servers provide more accurate portion control than serving spoons that are not volume-standardized measure.

Specialty Spoons



A thumb notch on a server or spoon handle prevents the spoon from slipping into the pan and prevents hands from sliding into the food. Triple-edge (solid or perforated) spoons have a flat edge that increases the area where the spoon touches the bottom of the pan when stirring.

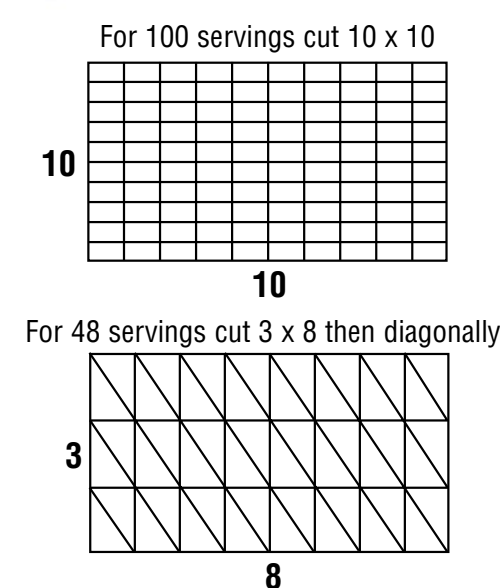
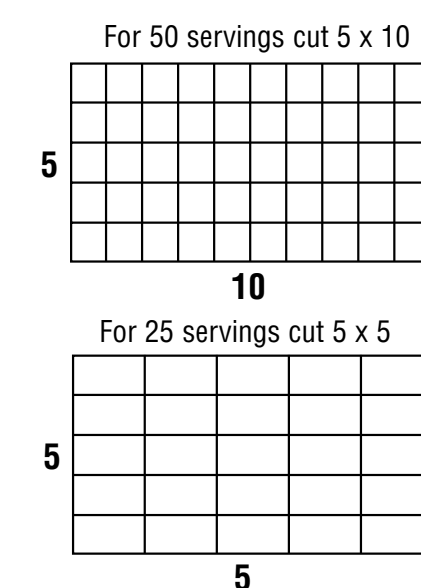
Steamtable Pan Capacity

Pan Size	Approx. Capacity	Serving Size	Ladle (fl oz)	Scoop #	Approx. # Servings
12" x 20" x 2-1/2"	2 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	64 80 96 128
12" x 20" x 4"	3-1/2 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	112 135 168 224
12" x 20" x 6"	5 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	160 200 240 320

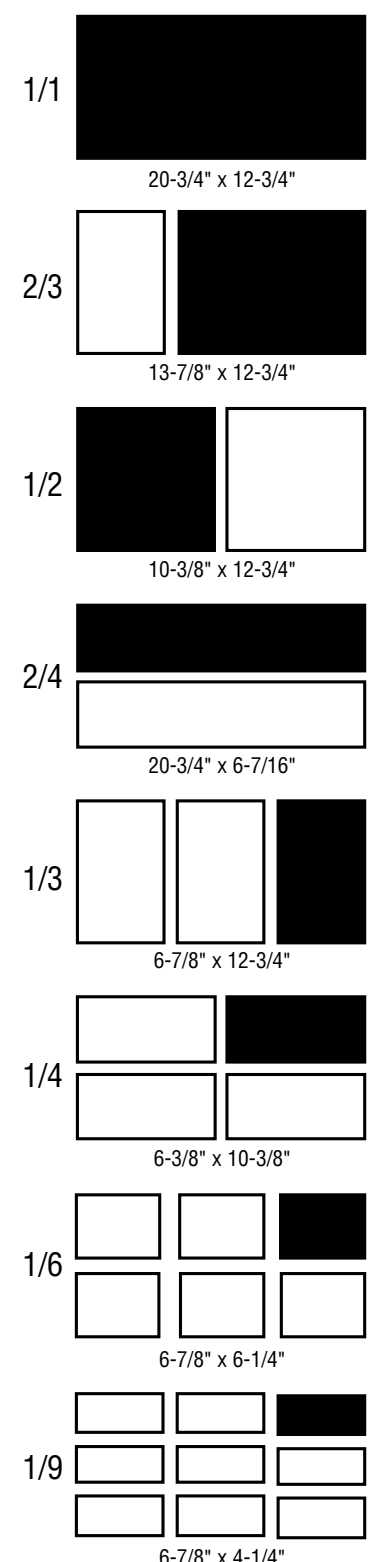
Approximate Dimensions of Serving Sizes from Different Pan Sizes

Pan	Approx. Size	No. and Approx. Size Servings per Pan		
Baking or steamtable	12" x 20" x 2-1/2"	25	50	100
		2" x 3-3/4"	2" x 2"	-----
Sheet or bun	18" x 26" x 1"	3-1/4" x 5"	3-1/4" x 2-1/2"	1-3/4" x 2-1/2"

Cutting Diagrams for Portioning



Other Pan Sizes



Steamtable or counter pans are available in various sizes. Smaller size pans may require the use of an adapter bar.



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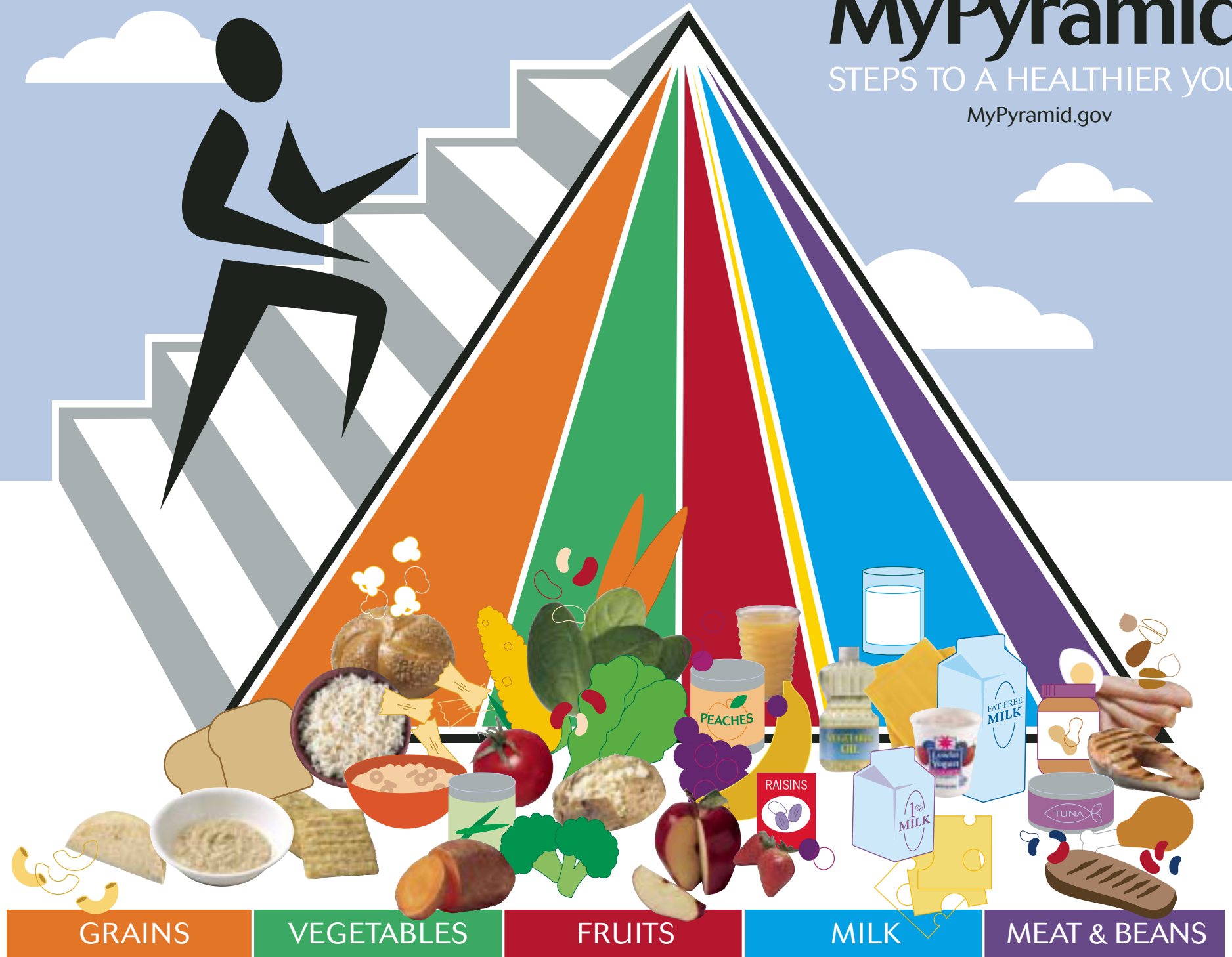
EX60-02A
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MyPyramid

STEPS TO A HEALTHIER YOU

MyPyramid.gov



GRAINS

Make half your grains whole

Eat at least 3 oz. of whole-grain cereals, breads, crackers, rice, or pasta every day

1 oz. is about 1 slice of bread, about 1 cup of breakfast cereal, or 1/2 cup of cooked rice, cereal, or pasta

VEGETABLES

Vary your veggies

Eat more dark-green veggies like broccoli, spinach, and other dark leafy greens

Eat more orange vegetables like carrots and sweetpotatoes

Eat more dry beans and peas like pinto beans, kidney beans, and lentils

FRUITS

Focus on fruits

Eat a variety of fruit

Choose fresh, frozen, canned, or dried fruit

Go easy on fruit juices

MILK

Get your calcium-rich foods

Go low-fat or fat-free when you choose milk, yogurt, and other milk products

If you don't or can't consume milk, choose lactose-free products or other calcium sources such as fortified foods and beverages

MEAT & BEANS

Go lean with protein

Choose low-fat or lean meats and poultry

Bake it, broil it, or grill it

Vary your protein routine — choose more fish, beans, peas, nuts, and seeds

For a 2,000-calorie diet, you need the amounts below from each food group. To find the amounts that are right for you, go to MyPyramid.gov.

Eat 6 oz. every day

Eat 2 1/2 cups every day

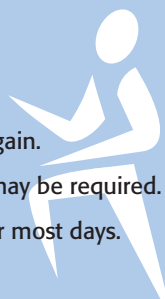
Eat 2 cups every day

Get 3 cups every day;
for kids aged 2 to 8, it's 2

Eat 5 1/2 oz. every day

Find your balance between food and physical activity

- Be sure to stay within your daily calorie needs.
- Be physically active for at least 30 minutes most days of the week.
- About 60 minutes a day of physical activity may be needed to prevent weight gain.
- For sustaining weight loss, at least 60 to 90 minutes a day of physical activity may be required.
- Children and teenagers should be physically active for 60 minutes every day, or most days.



Know the limits on fats, sugars, and salt (sodium)

- Make most of your fat sources from fish, nuts, and vegetable oils.
- Limit solid fats like butter, stick margarine, shortening, and lard, as well as foods that contain these.
- Check the Nutrition Facts label to keep saturated fats, *trans* fats, and sodium low.
- Choose food and beverages low in added sugars. Added sugars contribute calories with few, if any, nutrients.



U.S. Department of Agriculture
Center for Nutrition Policy and Promotion
April 2005
CNPP-15



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Lasagna with Ground Beef

Meat/Meat Alternate-Vegetable-Grains/Breads

Main Dishes

D-25

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Raw ground beef (no more than 20% fat)	3 lb 4 oz		6 lb 8 oz		1. Brown ground beef. Drain. Continue immediately. Add onions and granulated garlic. Cook for 5 minutes.
*Fresh onions, chopped OR Dehydrated onions	3 lb OR 9 oz	2 qt OR 1 qt ¾ cup	6 lb OR 1 lb 2 oz	1 gal OR 2 qt 1 ½ cups	
Granulated garlic		2 Tbsp		¼ cup	2. Add pepper, parsley, canned tomatoes, tomato paste, water, and seasonings. Heat to boiling, uncovered. Remove from heat.
Ground black or white pepper		1 tsp		2 tsp	
Dried parsley		¼ cup		½ cup	3. Assemble ingredients as follows: In steamtable pans (12" x 20" x 2 ½") which have been lightly coated with pan release spray. For 50 servings, use 2 pans. For 100 servings, use 4 pans.
Canned diced tomatoes, with juice	4 lb 4 oz	2 qt ¼ cup (⅔ No. 10 can)	8 lb 8 oz	1 gal ½ cup (1 ⅓ No. 10 cans)	
Canned tomato paste	1 lb 12 oz	3 cups 2 Tbsp (¼ No. 10 can)	3 lb 8 oz	1 qt 2 ¼ cups (½ No. 10 can)	
Water		3 qt		1 gal 2 qt	
†Seasonings Dried basil Dried oregano Dried marjoram Dried thyme		3 Tbsp 3 Tbsp 1 Tbsp 1 tsp		¼ cup 2 Tbsp ¼ cup 2 Tbsp 2 Tbsp 2 tsp	3. Assemble ingredients as follows: In steamtable pans (12" x 20" x 2 ½") which have been lightly coated with pan release spray. For 50 servings, use 2 pans. For 100 servings, use 4 pans.
Enriched lasagna noodles, uncooked (at least 0.78 oz each)	2 lb 12 oz	56 each	5 lb 8 oz	112 each	
					<p>For each pan</p> <p>1st layer-1 qt ½ cup sauce</p> <p>2nd layer-14 uncooked noodles lengthwise</p> <p>3rd layer-1 qt ½ cup sauce</p> <p>4th layer-6 ¼ oz (1 ½ cups 1 Tbsp) cheese blend and 9 ½ oz (2 ¼ cups 2 Tbsp) mozzarella cheese</p> <p>5th layer-14 uncooked noodles crosswise</p> <p>6th layer-1 qt ¾ cup sauce</p> <p>7th layer-6 ¼ oz (1 ½ cups 1 Tbsp) process American cheese and 9 ½ oz (2 ¼ cups 2 Tbsp) mozzarella cheese</p>

Lasagna with Ground Beef

Meat/Meat Alternate-Vegetable-Grains/Breads

Main Dishes

D-25

Cheese blend of American and skim milk cheeses, shredded	1 lb 9 oz	1 qt 2 ¼ cups	3 lb 2 oz	3 qt ½ cup
Lite mozzarella cheese, shredded	2 lb 6 oz	2 qt 1 ½ cups	4 lb 12 oz	1 gal 3 cups
4. Tightly cover pans.				
5. Bake: Conventional oven: 350° F for 1 ¼ -1 ½ hours Convection oven: 325° F for 45 minutes CCP: Heat to 165° F or higher for at least 15 seconds.				
6. Remove pans from oven. Uncover. Let stand for 15 minutes before serving.				
7. CCP: Hold for hot service at 135° F or higher. Cut each pan 5 x 5 (25 pieces per pan).				

Comments:

*See Marketing Guide.

†Italian Seasoning Mix (see G-01, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¼ cup 3 Tbsp 1 tsp Italian Seasoning Mix. For 100 servings, use ¾ cup 2 Tbsp 2 tsp Italian Seasoning Mix.

Marketing Guide for Selected Items

Food as Purchased for	50 Servings	100 Servings
Mature onions	3 lb 7 oz	6 lb 14 oz

SERVING:	YIELD:	VOLUME:
1 piece provides 2 oz equivalent meat/meat alternate, ⅓ cup of vegetable, and ¼ serving of grains/breads.	50 Servings: about 22 lb 12 oz	50 Servings: 2 steamtable pans
	100 Servings: about 45 lb 8 oz	100 Servings: 4 steamtable pans
	Tested 2004	

Lasagna with Ground Beef

Nutrients Per Serving					
Calories	269	Saturated Fat	4.69 g	Iron	2.65 mg
Protein	19.88 g	Cholesterol	34 mg	Calcium	304 mg
Carbohydrate	28.35 g	Vitamin A	910 IU	Sodium	406 mg
Total Fat	8.70 g	Vitamin C	16.3 mg	Dietary Fiber	2.3 g

Spaghetti and Meat Sauce

Meat-Vegetable-Bread Alternate

Main Dishes

D-35

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Raw ground beef (no more than 24% fat)	8 lb 10 oz		17 lb 4 oz		1. Brown ground beef. Drain. Add onions and garlic powder. Cook for 5 minutes.
Dehydrated onions OR	6 oz	1 3/4 cup	12 oz	3 1/2 cups	
*Fresh onions, chopped	3 lb	2 qt	6 lb	1 gal	
Garlic powder		1 Tbsp 1 1/2 tsp		3 Tbsp	2. Add pepper, canned tomatoes, tomato paste, water, and seasonings. Simmer about 1 hour. CCP Heat to 155 degrees F or higher for at least 15 seconds.
Black pepper		1 1/2 tsp		1 Tbsp	
Canned tomatoes, with liquid, chopped	4 lb 4 oz	2/3 No. 10 can	8 lb 8 oz	1 1/3 No. 10 cans	
Tomato paste	1 lb 12 oz	1/4 No. 10 can	3 lb 8 oz	1/2 No. 10 can	
Water		1 1/2 qt		3 qt	
#Flaked basil		3 Tbsp 2 tsp		1/4 cup 3 Tbsp	
#Flaked oregano		3 Tbsp 2 tsp		1/4 cup 3 Tbsp	
#Flaked marjoram		2 Tbsp 2 tsp		1/4 cup 1 Tbsp	
#Flaked thyme		1 1/2 tsp		1 Tbsp	
Water		3 gal		6 gal	3. Heat water to rolling boil. Add salt.
Salt		1 Tbsp		2 Tbsp	
Spaghetti, broken into thirds	3 lb 1 oz		6 lb 2 oz		4. Slowly add spaghetti. Stir constantly, until water boils again. Cook 10-12 minutes or until tender; stir occasionally. DO NOT OVERCOOK. Drain well.
					5. Stir hot spaghetti into hot meat sauce.
					6. Pour into serving pans.
					CCP Hold for hot service at 140 degrees F or higher.
					7. Portion 3/4 cup per serving.

Spaghetti and Meat Sauce

Meat-Vegetable-Bread Alternate

Main Dishes

D-35

Comments:
*See Marketing Guide.

#Italian Seasoning Mix (see G-1, Sauces and Gravies) may be used to replace these ingredients. For 50 servings, use 1/2 cup 2 Tbsp Italian Seasoning Mix. For 100 servings, use 1 1/4 cups Italian Seasoning Mix.

Marketing Guide

Food as Purchased

For 50 Svgs

For 100 Svg

Mature onions

3 lb 7 oz

6 lb 14 oz

SERVING:

YIELD:

VOLUME:

3/4 cup provides 2 oz of cooked lean meat, 3/8 cup of vegetable, and 1 serving of bread alternate

50 Servings: about 2 3/4 gal

50 Servings:

100 Servings: about 5 gal

100 Servings:

Nutrients Per Serving

Calories

288

Protein

18g

Carbohydrate

16g

Total Fat

12g

Thiamin

.20mg

Phosphorus

180mg

Saturated Fat

Cholesterol

49mg

Vitamin A

75 RE/628 IU

Vitamin C

14mg

Riboflavin

.24mg

Potassium

526mg

Iron

3mg

Calcium

44mg

Sodium

191mg

Dietary Fiber

Niacin

4.73mg

Food Cutter/Chopper

1. Hub Cover
2. Clutch Handle
3. Bowl Guard
4. Bowl
5. On/Off Switch



HOW TO OPERATE A FOOD CUTTER OR CHOPPER

WHAT TO DO:

1. Assembly
2. Fill Bowl
3. Strip machine and remove chipped food from bowl

HOW TO DO IT:

Turn off switch and unplug machine. Place bowl in position, rotate bowl counter clockwise to stop. Place knife on shaft and secure with hand knob. Place in closed locked position.

Fill bowl 1/3 to 1/2 full. Do not overfill. Plug in machine and turn on switch.

Turn switch to off. Do not lift cover until knives have stopped moving. Open cover, turn lock knob to right angle. Unscrew hand knob. Slide off knife assembly. Remove food from bowl.

SAFETY PRECAUTIONS

1. Never put hands in bowl when in use.
2. Wait until knives have stopped revolving before removing food and cleaning.
3. Do not overload the bowl, fill no more than 2/3 full.
4. Use large spoon rather than hand to guide food into cutters – move in direction opposite to bowl rotation.
5. Do not use for cutting meat with bones and gristle which damage knives and gears.
6. After cleaning make sure knives are replaced in the proper position. Do not use for:
 - Raw meat
 - Meat with bones
 - Meat with gristle
 - Soft bread
 - Greens
 - Cheese

Food Cutter/Chopper

HOW TO CLEAN A FOOD CUTTER/CHOPPER

WHAT TO DO:

Remove Parts

Clean Knives

Clean bowl guard

Clean bowl

Clean parts

Reassemble

Clean under surface

HOW TO DO IT:

Push switch to “off” position. DANGER: Wait until knives have stopped revolving. Release safety catch holding bowl guard in place. Lift guard and remove.

Unscrew wingnut and remove blades from motor shaft. Clean cautiously and carefully with hot detergent solution using disk mop or sponge with handle. Rinse and Dry.

Remove all food particles, paying particular attention to area ground guard. Wash with hot detergent solution. Rinse and dry.

If removable, remove and wash with other parts. If fixed, wipe out food particles. Clean with hot detergent solution. Rinse and dry.

Wash small parts in hot detergent solution. Rinse and dry.

Replace guard. Attach bowl to base. Reattach knife blades to shaft. Drop guard into position.

If bowl is not removable, clean under surface. Wash table or pedestal with hot detergent solution. Rinse and dry.

PERIODIC CARE (to supplement daily)

Lubricate

Oil motor according to manufacturers instruction.

Sharpen Knives

Have knives sharpened, when needed by reliable service organization.

END OF SCHOOL YEAR CARE

Disconnect cutter

Disconnect cutter from wall socket of switch box.

Clean interior and exterior

Clean interior and exterior thoroughly using same procedure as for daily cleaning. Wipe knives with cloth dampened with cooking oil or other rust preventative.

Storage

Store unassembled and wrap so parts will not rust.

Vertical Cutter Mixer (VCM)

Vertical Cutter/Mixer – A vertical cutter/mixer, flat-bottomed food preparation vessel. It is used for cutting, mixing and blending when quick volume production is desired. An electric motor rotates a blade at high speed, which cuts, mixes or blends the product rapidly. It is used to chop and blend vegetables, meats, cheese, breadcrumbs, and to mix certain products.

Advantages of the Vertical Cutter/Mixer (VCM)

- It can reduce total preparation time.
- It is very flexible and can be used for a wide variety of food.
- It is very easy to clean.

HINTS

- When VCM is not in use, do not leave any attachments on the center motor shaft.
- Lay attachments in bowl separately.
- Use standard narrow knives if in doubt as to the proper accessory.
- Check the knife shaft prior to each use to be sure the locking nut is tight.
- Stop VCM frequently to check progress of product.
- Do not exceed 80% bowl capacity when using liquids.
- Do not exceed the recommended maximum capacities.
- Always put liquid into bowl first, and then dry ingredients. If recipe calls for shortening, add this last.
- Remove gristle and tendon content before processing meat.
- Reduce large or bulky items (cheese, celery stalks, large chunks of meat, etc.) to a fine cut product.
- Limit product size (must be free to drop into cutting blades)
- Run VCM briefly to break down the large or hard chunks, and then add balance of load for final cutting and mixing.
- For best results, cheese or meat should be chilled (tempered to 28 degrees F) before cutting.
- When using large, tempered chunks, remove mixing paddle during first 10 seconds of chopping time.



HOW TO OPERATE A VCM

WHAT TO DO:

1. Jogging Method – This method of operation should be used to control produce particle size. It is recommended for inexperienced VCM operations.
2. Continuous Method (This method is recommended for experienced VCM operators.

HOW TO DO IT:

- Place left hand on switch and right hand on mixing baffle handle.
 - Turn mixing baffle one revolution clockwise.
 - Turn mixing baffle one quarter of a revolution counter clockwise.
 - Turn switch on (low speed, No 1 setting).
 - Repeat steps Nos. 3 through 6 until the product is out to desired consistency.
-
- Place left hand on switch and right hand on mixing baffle handle.
 - Turn switch on (low speed, No. 1 setting).
 - Turn mixing baffle in clockwise direction.

Vertical Cutter Mixer (VCM)

- Sharply reverse this direction one quarter of a turn after each revolution.
 - When desired consistency is achieved, turn switch off.
3. Unload
- Be certain the machine has come to a complete stop before opening the bowl cover. Remove the shaft with the cutting knives before emptying bowl.
 - Non-cutting accessories, such as the standard stir/mix shaft, grater shaft, or hinged/wing knives need not be removed.
 - If necessary, scrape bowl cover before tipping the machine.
 - When removing the finished product from the bowl, you can lock the bowl in various positions by means of the bowl positioning lever.
4. Clean
- Use standard narrow knives. Use either mixing baffle or the homogenizing baffle.
 - Fill bowl 1/3 full of warm water (not hot water).
 - Add a small amount of detergent and close cover and inspection cover. Place towel over inspection cover.
 - Start in low speed, switch to high speed.
 - Turn baffle counter clockwise.
 - Turn switch off, wait until machine comes to a stop before opening cover.

SAFETY PRECAUTIONS

1. Never put hands in bowl when in use.
2. Wait until knives have stopped revolving before removing food and cleaning.
3. Do not overload the bowl, fill no more than 2/3 full.
4. Use large spoon rather than hand to guide food into cutters – move in direction opposite to bowl rotation.
5. Do not use for cutting meat with bones and gristle which damage knives and gears.
6. After cleaning make sure knives are replaced in the proper position. Do not use for:
 - Raw meat
 - Meat with bones
 - Meat with gristle
 - Soft bread
 - Greens
 - Cheese

Vertical Cutter Mixer (VCM)

PERIODIC CARE

- | | |
|-------------------|-------------------------------------------------------------|
| 1. Oil Motor | Oil the motor according to the manufacturer's instructions. |
| 2. Sharpen Knives | Have the knives sharpened by a service-man. |

HELPFUL OPERATING TIPS

1. Use low speed for all general cutting and mixing.
2. Use high speed for emulsifying, pureeing, homogenizing or crumbing.
3. When cutting products of different hardness, cut hard products first and soft products last.
4. Stop often and check the progress of the product.

Garbage Disposal

The garbage disposal is used to grind most food waste. Running water is used to flush the ground waste through the unit and into the main sewer line.



GENERAL DIRECTIONS FOR PROPER USE OF THE GARBAGE DISPOSAL

Before using the garbage disposal:

WHAT TO DO:

Check the unit

Check “flange”

Ensure motor is running

Do not overload

HOW TO DO IT:

- Check to be certain that there are no foreign objects (e.g. utensils, bones, etc.) inside of the unit.
- Be sure that the “flange” is in place. The flange is the rubber stopper which fits into the opening of the disposal.
- Do not feed food waste into the disposal unless the water and motor are running. NOTE: Never feed celery, bones or onion skins into the disposal.
- Do not overload the disposal with an excessive amount of food, water, or waste at one time. CAUTION: Never put hands into the unit while it is in operation.

TO OPERATE A GARBAGE DISPOSAL

WHAT TO DO:

Start Disposal

HOW TO DO IT:

Start the disposal by depressing the start button. This will begin the motor and the flow of water (some models may require the water be run manually). Always be sure

Garbage Disposal

that the water is running before feeding food waste into the unit.. ** **Refer to the operators manual for specific instructions for your school's unit**

Feed Food

Feed the food into the disposal in a steady continuous manner. The unit operates most efficiently with this method. Do not stop the motor until all the food waste has been run through the unit.

Run disposal

Run the disposal for 2-3 minutes after the last of the food waste has been fed into the unit. This assures that all of the water has passed through the unit. It also helps to maintain a clean and odor free unit as well as prevent clogging of drainpipes.

Stop Disposal

Stop the disposal by depressing the stop button.

IF THE DISPOSAL STOPS DURING OPERATION:

Turn off

Before checking for a cause, **turn off** the disposal.

Check Unit

Check to see if the unit has been jammed because it has been overloaded or a foreign object has accidentally been fed into the disposal (e.g. spoon, wrapper, metal twisty, etc.).

Remove Materials

Remove the materials which might have caused the unit to stop (or jam).

Wait for motor to cool

Wait 3-5 minutes for the disposal motor to cool then depress the red reset button. This is an overload switch, which stops electric current to prevent the motor from being damaged.

Depress reset button

Use a finger to depress the reset button. **NEVER** use an object to depress the button.

Contact Food Service Office

If the disposal does not resume normal operation after following the above procedures, contact the food service office.

KNIVES



USES of a BONING KNIFE

- Disjointed fowl
- Separating meat from bone
- Dicing raw meat
- Coring Lettuce



USES of a BREAD KNIFE

- Slicing bread or cake with a light sawing motion



USES of a FRENCH KNIFE

- Slicing/cutting raw fruits
- Slicing/cutting raw vegetables
- Slicing/cutting warm meat
- Chopping
- Dicing
- Mincing



USES of a SLICER KNIFE

- Slicing tomatoes and lettuce
- Slicing wedges
- Slicing roast and hams
- Slicing cakes
- Slicing sandwiches



USES of a PAIRING KNIFE

- Paring fruits
- Paring vegetables
- Removing eyes from potatoes



PIE KNIFE

- Removing pieces of pie from pan

CAUTION: It is much easier to keep knives sharp than to have them reconditioned, which is necessary if the blades become badly dulled or blunted.

KNIVES

STORAGE OF KNIVES

WHAT TO DO:

1. Care for Knives

HOW TO DO IT:

- If chrome plating is scratched, the exposed metal will rust or stain. Hollow ground blades are especially subject to damage from careless handling.
- Be careful that blades do not strike against each other or other tools.
- Heat can damage the blade of a good knife so do not subject your blades to direct heat.
- Never use good knives for cutting paper, string, or for sharpening pencils.
- Never allow a knife with a wooden handle to soak in water.

2. Care for handles

CARE FOR METALS

WHAT TO DO:

HOW TO DO IT:

Aluminum

1. Clean thoroughly

- Wash thoroughly after each use with hot water and a mild soap, detergent or aluminum cleaner. A fine steel wool can be used. Dry thoroughly with a clean dry towel.

Chromium Plate

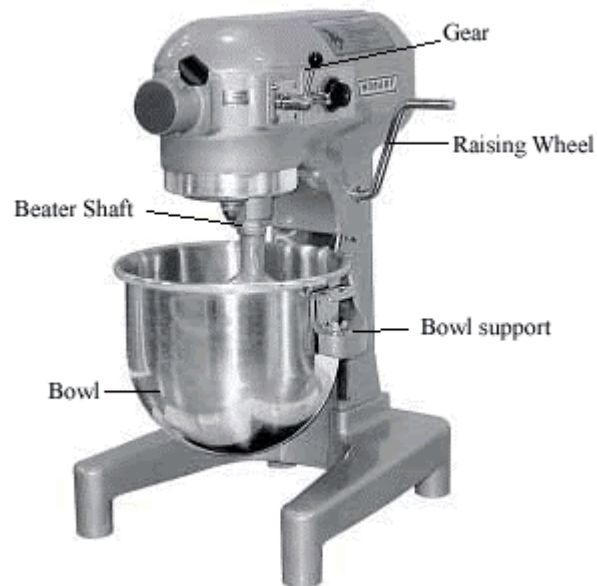
1. Use and clean carefully

- Use and clean chromium plated utensils carefully, so you will not scratch or wear off plating.

CAUTIONS:

- Do not use soda, lye, ammonia, or washing powder containing strong alkalis. Generally speaking, cleaners that do not injure the hands will not harm aluminum.
- Never turn cold water into a heated aluminum pan, as this may cause warping. Use hot water in a heated pan
- Discoloration due to deposits having been made on the inside of utensils by water or food is harmless and will not affect the food. To clean discoloration, use a solution of vinegar and water (1/4 cup to 1/2 cup vinegar to 1 quart of water). Fill utensil with this solution and let simmer for 15 minutes, and then allow mixture to cool for 15 minutes. Clean pan while still warm, using steel wool. Repeat this process if necessary. Often discoloration is removed by cooking some acid fruit or vegetable in the utensil. It will disappear without affecting the taste, color, or quality of food. Strong alkaline and salt will cause pitting of aluminum.

Food Mixer



HOW TO OPERATE A FOOD MIXER

CAUTION: Instructions given below are general; read and follow the manufacturer's directions carefully.

WHAT TO DO:

1. Place bowl
2. Fill Bowl
3. Insert Beater
4. Raise bowl
5. Fill Bowl
6. Insert Beater
7. Remove Food

HOW TO DO IT:

Select appropriate size bowl. Place bowl on bowl support.

Place ingredients in bowl as recipe directs (1/2 to 2/3 capacity for best results).

Select and insert proper beater for ingredients to be mixed.

Raise bowl into position by means of wheel or lever.





For belt driven machine, switch to "on" position.
For gear driven, be sure gear is in neutral; push start button and set gear to speed required by recipe.
Beat or mix the required length of time.

For belt driven machine, switch to "off" position.
For gear driven machine shift to neutral gear and push "stop" button.


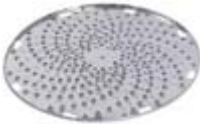


Lower bowl by means of wheel or lever. Remove beater. Remove bowl.


Food Mixer

USES FOR BEATERS AND WHIPS

Flat Beater – Use for general mixing, never for heavy dough's.	<ul style="list-style-type: none"> • Mixing main dish items, such as ham-bean load, fish cakes, and hamburger.
	<ul style="list-style-type: none"> • Mashing vegetables such as potatoes and squash.
	<ul style="list-style-type: none"> • Creaming mixtures such as butter and sugar, uncooked icings, honey, butter, and sandwich spreads.
	<ul style="list-style-type: none"> • Mixing matters such as muffins, cakes, and steamed puddings.
	<ul style="list-style-type: none"> • Blending mixtures such as pastry and biscuits.
Wire Whip – Never use for heavy mixtures. Do not mash potatoes; can be used for instant mashed potatoes.	<ul style="list-style-type: none"> • Incorporating air into light mixtures.
	
Dough Hook	<ul style="list-style-type: none"> • Use for mixing heavy dough requiring a folding and stretching action for best development.
	
Vegetable Slicer	Use with various plate attachments.
	

Food Mixer

Adjustable Slicer Plate	<ul style="list-style-type: none"> Used for slicing potatoes, cabbage, and firm fruits.
	
Grater Plate	<ul style="list-style-type: none"> Used for firm vegetables, dry bread for crumbs.
	
Shredder Plate	<ul style="list-style-type: none"> Use for Cole slaw, vegetables for soups or salads, hard cheese.
	
Meat and Food Chopper	Use for raw or cooked meat, vegetables and dry fruits, dry bread crumbs, and processed cheese.
	

Knife	<ul style="list-style-type: none"> Used for cutting and chopping foods.
	
Pusher	<ul style="list-style-type: none"> Used for pushing food into mixer.

Food Mixer

SAFETY PRECAUTIONS

- Select proper bowl and proper beater or whip for the type of mixture.
- Be sure to fasten bowl and beater or whip securely before starting motor.
- DO NOT PUT HAND OR SPOONS INTO BOWL WHILE THE MIXER IS IN OPERATION.
- STOP the machine before scraping down sides of bowl during mixing process.
- Always use rubber scraper, flexible scraper, or long handled spoon to scrape down bowl and remove food from beater.
- Use missing bowls for mixing only. NEVER on range or in the oven.
- If mixer is used for long period, allow time for motor to cool. Most mixers operate at capacity load for one hour without overheating or damaging motor.
- Allow proper mixing time for products – over mixing is as damaging as under-mixing.
- It is wise to store the knife and chopper blades in a separate plastic bag after washing and drying thoroughly.
- Put a piece of bread through the chopper after grinding cheese.
- Use a pusher, never hands.

HOW TO CLEAN A FOOD MIXER

CAUTION: Instructions given below are general; read and follow the manufacturer's directions carefully. Have motor and mechanical parts inspected regularly as needed by reliable service organization.

HOW TO CLEAN A FOOD MIXER

WHAT TO DO:

Clean Machine

Clean Parts

WEAKLY CLEANING (to supplement daily)

Clean entire Mixer

PERIODIC CARE (to supplement daily)

Lubricate

END OF SCHOOL YEAR CARE

Disconnect mixer

Clean entire mixer and attachments

HOW TO DO IT:

Immediately after use, clean bowl support, beater shaft, shell, and base with hot detergent solution. Rinse and dry. Scrape and brush out groove on beater shaft if necessary.

Wash bowl and beaters immediately after using.

Clean thoroughly following instructions for daily cleaning.

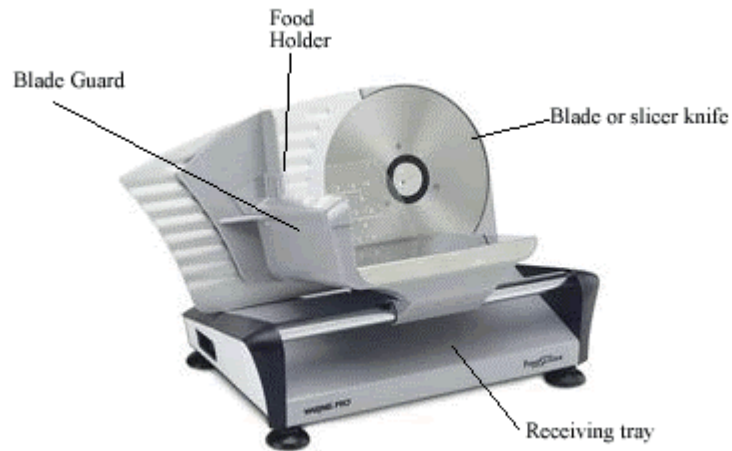
Lubricate machine according to manufacturer's instructions.

Disconnect mixer from wall socket or switch box.
Clean and dry thoroughly following instructions for

Food Mixer

Storing Parts	daily cleaning. Store in clean, dry place. Small attachment parts may be stored in plastic bags. Have bowls retinned, if necessary.
Servicing	Have reliable service organization inspect and lubricate mixer.

Food Slicer



HOW TO OPERATE A FOOD SLICER

CAUTION: Instructions given below are general; read and follow the manufacturer's directions carefully.

WHAT TO DO:

1. Put plug into socket
2. Place food in carriage
3. Adjust indicator
4. Start motor
5. Slice Food

HOW TO DO IT:

Plug in. NOTE: Be sure the cord is dry and free from grease to avoid short circuits. Be sure that hands are dry to prevent shock.

Place food in carriage and hold it firmly in place by means of food holder.

Adjust blade control indicator for desired thickness of slice.

Turn switch on.

Move carriage back and forth across the blade using the handle. NOTE: Develop a rhythmic motion. DO NOT bang carriage.

HOW TO CLEAN A FOOD MIXER

DRY CLEANING

WHAT TO DO:

Remove Parts

HOW TO DO IT:

Remove electric cord from socket. Set blade control indicator at zero. Remove parts following

Food Slicer

manufacturer's instructions.

Clean blade

Wipe gauge plate with hot detergent solution. Rinse and dry. NOTE: KEEP CLEAR OF BLADE EDGE. Wipe entire blade with heavy cloth, folded and dampened with hot detergent solution wrap around long handled hook if provided (Wipe from center toward edge of blade) rinse and dry with clean heavy cloth.

Clean and replace guard

Wash blade guard in hot detergent solution. Rinse and dry. NOTE: Replace blade guard immediately to prevent injury.

Clean other parts

Wash other parts in hot detergent solution. Rinse and dry.

Clean frame and base

Wash all surfaces with hot detergent solution. Clean under blade with damp cloth.

Replace parts

Replace parts following manufacturer's instructions.

Cover Slicer

Cover with plastic or clean towel.

WEEKLY CLEANING

Clean entire slicer

Clean thoroughly following instructions for daily cleaning. NOTE: be sure to clean area under slicer.

PERIODIC CARE

Sharpen blade

Sharpen blade as needed following manufacturer's instructions.

Lubricate

Lubricate slicer following manufacturer's instructions.

Remove gauge plate

Remove and clean gauge plate following manufacturer's instructions.

END OF SCHOOL YEAR

Disconnect Slicer

Disconnect slicer from wall socket or switch box.

Clean entire slicer

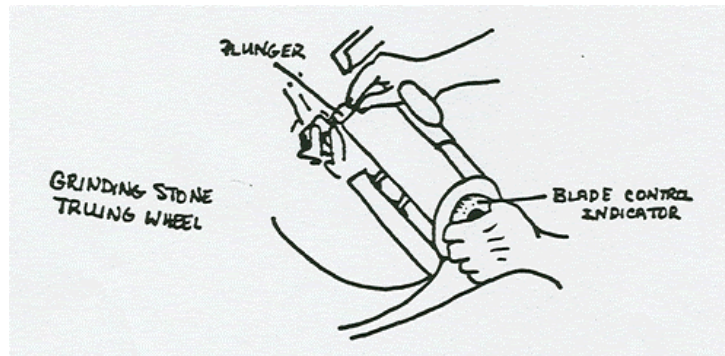
Clean and dry thoroughly following instructions for daily and weekly cleaning.

Servicing

Have reliable service organization sharpen blade and lubricate motor and parts.

Food Slicer

GENERAL DIRECTIONS FOR PROPER USE OF THE SHARPENER ACCESSORY



WHAT TO DO:

1. Set Indicator
2. Wash surfaces
3. Clean knife edge
4. Remove carriage
5. Set indicator knob
6. Loosen/tighten thumb screw
7. Turn on
8. Turn the blade control indicator knob
9. Stop and inspect the slicer
10. Engage the truing wheel
11. Release plunger

HOW TO DO IT:

Set the blade control indicator at zero.

Wash the knife surfaces and area around the knife.

With the knife guards in place, wash all grease from exposed areas of the knife-edge.

Remove carriage by loosening the thumbscrew.

Set the blade control indicator knob at 50 on the dial.

Loosen the thumbscrew on the sharpener until the sharpener assembly slips upward into the slot. Tighten the thumbscrew.

Turn on the slicer.

Turn the blade control indicator knob slowly clockwise until the grinding stone touches the knife-edge. Grind the blade until the grinding stone touches the knife-edge. Grind the blade until a burr edge forms on the front edge of the knife.

Stop the slicer and inspect if for a burred edge on the blade. If there is a burr, start the slicer again.

Depress the plunger to engage the truing wheel on the burred edge while grinding the knife edge on the beveled side for about three seconds.

Release the plunger while turning the blade control indicator knob counter-clockwise away from the

Food Slicer

knife edge at the same time.

12. Remove the sharpener

Stop the slicer and remove the sharpener. Return the blade control indicator knob to zero.

13. Store the knife sharpener

Store the knife sharpener in an oil free area. If the sharpening stone become greasy, it will not sharpen the blade.

14. Clean the slicer blade

Clean the slicer blade with a dampened clean cloth to remove any grinding particles.

CAUTIONS AND GUIDES IN OPERAITNG A FOOD SLICER

1. The operation of a slicer will vary according to the make and model. The manufacturer's instructions should be followed to obtain the best performance from the slicer and to assure a long life.
2. All electrical connections should conform with the National Electrical Code Requirements (an American standard) together with other State and local requirements.
3. When cleaning a slicer, do not let water come in contact with the motor or electrical wiring.
4. Never use the slicer when the blade guard is off.
5. Always keep hands away from blade when machine is in operation.
6. Keep plug out of socket when machine is not in use. Be certain guard is on slicer before putting plug in socket.
7. Always make certain the switch is off and the plug is pulled out of the socket before starting to clean.
8. When disconnecting slicer, be careful to pull the plug – DO NOT pull cord.
9. Never use a metal instrument to scrape off food particles from slicer knife, as a nicked blade will rear food.
10. Make certain hands are dry before operating the slicer.
11. Be sure the cord is dry and free from grease to avoid short circuits.
12. Do not use very hot water or steam in cleaning slicer as too much heat may reduce the lubricants in important parts.
13. Keep blades sharpened according to manufacturer's instructions.

Steam Jacketed Kettle

Steam-jacketed kettles eliminate most range top cookery and reduce the number of pots and pans required. Steam-jacketed kettles are easy to clean and keep clean. They stand ready and invite use for convenient one step cooking.

Only steam has the capability to impart heat rapidly and in quantity without a large temperature difference between the source of heat and the food

In a steam-jacketed kettle, the steam is safely confined in the jacket and is separated from the food being cooked. It releases its heat through the inner jacket to the food. The resulting condensate (water) cannot mix with the food and dilute it.



There are two kinds of steam-jacketed kettles – non-tilting and tilting.

1. The non-tilting kettles are stationary and cannot be tilted to remove food or to clean. Food must be removed with a ladle or through a draw-off valve which is located at the base of the kettle.
2. The tilting kettles can be tilted so that food can be removed and the kettle can be cleaned.

Both non-tilting and tilting kettles are designed so that they are built on a pedestal base, they have legs, or they are mounted on the wall.

TIPS ON USE

1. The steam-jacketed kettle may be used for:
 - a. Meats, poultry, and beans
 - b. Soups, stews and barbecue
 - c. Vegetables and fruits
 - d. Hard cooked eggs
 - e. Cereal products – spaghetti, macaroni, dumplings, etc.
 - f. Sauces and gravies
 - g. Puddings and custards
2. To eliminate excess liquid in canned vegetables preparation, pour juice into steam-jacketed kettle, simmer until reduced to a small concentrated amount. Add vegetables to reduced liquid and heat gently to the boiling point
3. The cooking should be staggered to start just before serving and continue through the serving period
4. For green vegetables, let the steam escape by cooking in an uncovered steam-jacketed kettle. This helps to retain the appealing color of green vegetables

Steam Jacketed Kettle

5. Basket inserts are an available option for the smaller size tilting kettles. These baskets are especially useful for cooking vegetables because they can be quickly removed from the boiling water.

HOW TO OPERATE A STEAM-JACKETED KETTLE

WHAT TO DO:

1. Adjust kettle to upright level position

2. Check water level

3. Check safety valve

4. Turn on steam control valve

5. Fill Kettle

6. Cooking Food

7. Soak

HOW TO DO IT:

For tilting skillets, use hand crank.

For electric and gas self-contained kettles, keep water at halfway level in gauge glass. For kettles requiring addition of water, fill jacket according to manufacturer's instructions.

Check valve as described in instructions.

For electric, or direct steam kettles, turn on steam valve or electric switch. For gas kettle equipped with pilot, turn on main burner valve. Adjust heat or steam to proper temperature and pressure-adjust thermostat.) Open valve completely for highest temperature, close valve partially for simmering).

Add food or water in which food is to be cooked. Food or water should not exceed $\frac{3}{4}$ of the capacity of the kettle. Use long handled paddle for stirring.

Close steam control valve, electric switch or burner valve. Remove food from long handled dipper, or drain out through draw off faucet. For trunnion-type kettle, remove food by tilting kettle.

Immediately after use, fill kettle with warm water above cooking level and soak until washed. (Use cold water if egg or flour mixture has been cooked).

SAFETY PRECAUTIONS

1. Be careful when raising lid, avoid steam burns.
2. See that proper water level is maintained in water jacket.
3. If water jacket has gone dry, DO NOT add water without first allowing kettle to cool.
4. Use of distilled water eliminated lime build up.
5. Be sure that safety valve is in good working order; check it daily.
6. If steam pressure rises above safety level, turn off kettle and call Service Company.

Steam Jacketed Kettle

HOW TO CLEAN A STEAM-JACKETED KETTLE

Equipment

1. Long-handled gong brush, nylon or regular
2. Bottle or brush
3. Pot and pan detergent solution
4. Clean dry cloth

WHAT TO DO:

1. Pre-rinse interior
2. Drain
3. Clean interior, exterior, and frame
4. Clean drain valve
5. Rinse Kettle
6. Clean floor recess

HOW TO DO IT:

Make sure valve is off and kettle is cool. Scrub interior briskly with long handled brush.

Open valve at bottom of kettle, drain, close valve.

Remove strainer, fill kettle to cover highest food line. With stiff brush, scrub entire kettle, inside and outside, lid, hinges, etc. Use hot detergent solution.

Open drain valve, scrub valve with stiff bottle or urn brush as solution drains out; close drain.

Fill kettle about 1/3 full of warm water. Rinse well inside and outside; Use brush or clean mop. Drain and dry. Leave lid partially open.

Clean floor around kettle and the floor drain after each use. Mop dry so not one can slip and fall.

WEAKLY CLEANING

1. Clean interior and exterior

Follow directions above. Thoroughly clean exterior and polish if desired.

END OF SCHOOL YEAR

WHAT TO DO:

1. Clean interior and exterior
2. Turn off power
3. Servicing

HOW TO DO IT:

Clean thoroughly, following above instructions.

For electric kettles, turn off at main switch box. For gas kettles, turn off pilot light or turn off main gas inlet.

Have inspection made by reliable service company.